IN THE ABSTRACT:

Please delete the existing Abstract and substitute therefore the Abstract as set forth below.

A digital imbalance correction device and method are provided including an input unit to receive first input signals. A time-to-frequency-domain-transformer performs a transformation of the first input signals from time-domain into frequency-domain. A subtractor receives second input signals and outputs a gain difference as a function of frequency at its output. A cross-correlator receives third input signals based on the input signals, and outputs a cross-correlation of the third input signals. A gain corrector receives a fourth input signal based the associated first input signal. A gain of the fourth input signal is corrected based on the power difference spectrum. A phase corrector receives a fifth input signal based the associated first input signal. A phase of the fifth input signal is corrected based on the cross-correlation output, such that the phase of the fifth input signal is in quadrature relation to the other one of the first input signals.

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